

CLAIMS

1. An anti-soiling detergent composition, containing:

(A) 0.05 to 10 mass% of a polyetheramide-modified organopolysiloxane and/or amino-modified organopolysiloxane;

5 (B) 0.1 to 30 mass% of at least one type of surfactant selected from nonionic surfactants, amphoteric surfactants, and cationic surfactants;

(C) 0.1 to 20 mass% of a metal chelating agent; and

(D) water.

2. The anti-soiling detergent composition according to claim 1, containing

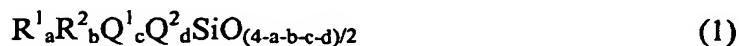
10 (E) 0.01 to 5 mass% of a thickener in addition to components (A) to (D).

3. The anti-soiling detergent composition according to claim 1 or 2, containing

(F) 0.1 to 20 mass% of a water-soluble solvent in addition to the above components.

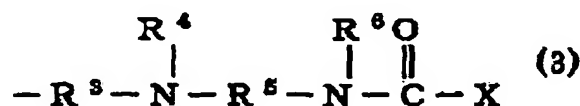
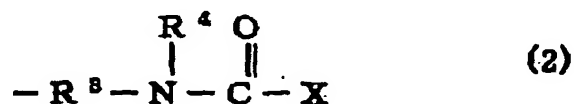
4. The anti-soiling detergent composition according to claims 1 to 3, wherein component (A) is a polyetheramide-modified organopolysiloxane.

15 5. The anti-soiling detergent composition according to claim 4, wherein the polyetheramide-modified organopolysiloxane of component (A) is a polyetheramide-modified organopolysiloxane expressed by average compositional formula (1)



(where  $a$  and  $d$  are zeros or positive numbers;  $b$  and  $c$  are positive numbers such that  $1.9 \leq a + b + c + d \leq 2.2$ ;  $R^1$  is a hydrogen atom, a hydroxyl group, or a substituted or unsubstituted monovalent hydrocarbon group with 1 to 6 carbon atoms;  $R^2$  is a monovalent hydrocarbon group with 1 to 6 carbon atoms;  $Q^1$  is a group expressed by general formula (2) or (3)

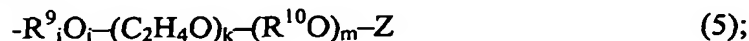
[Chemical Formula 1]



25  $R^3$  and  $R^5$  are divalent hydrocarbon groups with 2 to 18 carbon atoms;  $R^4$  and  $R^6$  are hydrogen atoms or monovalent hydrocarbon groups with 1 to 6 carbon atoms;  $X$  is a group expressed by general formula (4)

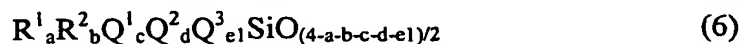


$e$  and  $f$  are each 0 or 1;  $g$  and  $h$  are zeros or positive integers of 1 or greater;  $R^7$  is a divalent hydrocarbon group with 2 to 18 carbon atoms;  $R^8$  is a divalent hydrocarbon group with 3 to 10 carbon atoms;  $Y$  is a hydrogen atom, a monovalent hydrocarbon group with 1 to 18 carbon atoms, an acyl group, or an isocyanic acid group;  $Q^2$  is a group expressed by general formula (5)



$i$  and  $j$  are each 0 or 1;  $k$  is a positive integer of 1 or greater;  $m$  is zero or a positive integer of 1 or greater;  $R^9$  is a divalent hydrocarbon group with 2 to 18 carbon atoms;  $R^{10}$  is a divalent hydrocarbon group with 3 to 10 carbon atoms; and  $Z$  is a hydrogen atom, a monovalent hydrocarbon group with 1 to 18 carbon atoms, an acyl group, or an isocyanic acid group; however  $d$  and  $g$  cannot both be zero at the same time).

6. The anti-soiling detergent composition according to claim 4, wherein the polyetheramide-modified organopolysiloxane of component (A) is a polyetheramide-modified organopolysiloxane expressed by average compositional formula (6)



(where  $a$  and  $d$  are zeros or positive numbers;  $b$ ,  $c$ , and  $e1$  are positive numbers such that  $1.9 \leq a + b + c + d + e1 \leq 2.2$ ;  $R^1$  is a hydrogen atom, a hydroxyl group, or a substituted or unsubstituted monovalent hydrocarbon group with 1 to 6 carbon atoms;  $R^2$  is a monovalent hydrocarbon group with 1 to 6 carbon atoms;  $Q^1$  is a group expressed by general formula (2) or (3)

[Chemical Formula 2]

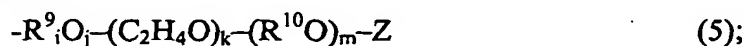


;

$R^3$  and  $R^5$  are divalent hydrocarbon groups with 2 to 18 carbon atoms;  $R^4$  and  $R^6$  are hydrogen atoms or monovalent hydrocarbon groups with 1 to 6 carbon atoms;  $X$  is a group expressed by general formula (4)

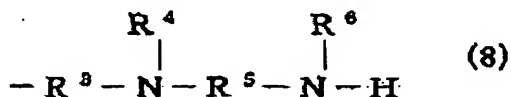


$e$  and  $f$  are each 0 or 1;  $g$  and  $h$  are zeros or positive integers of 1 or greater;  $R^7$  is a divalent hydrocarbon group with 2 to 18 carbon atoms;  $R^8$  is a divalent hydrocarbon group with 3 to 10 carbon atoms;  $Y$  is a hydrogen atom, a monovalent hydrocarbon group with 1 to 18 carbon atoms, an acyl group, or an isocyanic acid group;  $Q^2$  is a group expressed by general formula (5)



$i$  and  $j$  are each 0 or 1;  $k$  is a positive integer of 1 or greater;  $m$  is zero or a positive integer of 1 or greater;  $R^9$  is a divalent hydrocarbon group with 2 to 18 carbon atoms;  $R^{10}$  is a divalent hydrocarbon group with 3 to 10 carbon atoms; and  $Z$  is a hydrogen atom, a monovalent hydrocarbon group with 1 to 18 carbon atoms, an acyl group, or an isocyanic acid group;  $d$  and  $g$  cannot both be zero at the same time;  $Q^3$  is a group expressed by general formula (7) or (8)

[Chemical Formula 3]



$R^3$  and  $R^5$  are divalent hydrocarbon groups with 2 to 18 carbon atoms; and  $R^4$  and  $R^6$  are hydrogen atoms or monovalent hydrocarbon groups with 1 to 6 carbon atoms).

7. The anti-soiling detergent composition according to any of claims 2 to 6, wherein the thickener of component (E) is at least one compound selected from among thickening polysaccharides, carboxyvinyl polymers, crosslinked polyacrylic acids, and salts thereof.

8. The anti-soiling detergent composition according to any of claims 3 to 7, wherein the water-soluble solvent of component (F) is at least one compound selected from among alcohols, glycol ethers, and terpene-based hydrocarbon solvents.

9. The anti-soiling detergent composition according to any of claims 1 to 8, wherein the anti-soiling detergent composition is used in hard-surface applications.

10. The anti-soiling detergent composition according to any of claims 1 to 9, wherein the anti-soiling detergent composition is used in applications involving restrooms, washstands, baths, and other damp locations.